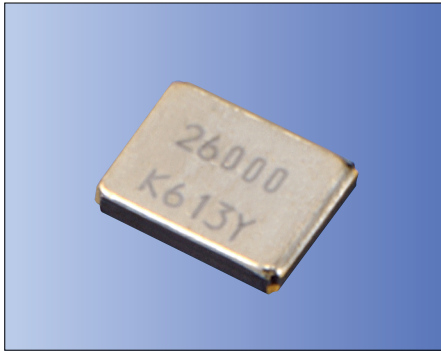




2.0 × 1.6mm for Consumer Products



**RoHS Compliant**  
**PSL: R4Y MSL1**

### How to Order

**CX2016DB 27000 D0 G S S HH**  
① ② ③④ ⑤ ⑥ ⑦ ⑧

- ① Series (Type and Size)
- ② Frequency (16,000 to 60,000kHz)
- ③④ Load Capacitance (Unit:pF) Ex.: D1:8.1pF

| ③ Integer part |                | ④ After the decimal point |    |
|----------------|----------------|---------------------------|----|
| D              | 8              | 0                         | .0 |
| E              | 9              | 1                         | .1 |
| F              | 10             | 2                         | .2 |
| G              | 11             | 3                         | .3 |
| H              | 12             | 4                         | .4 |
| Z              | Special suffix | 5                         | .5 |
|                |                | 6                         | .6 |
|                |                | 7                         | .7 |
|                |                | 8                         | .8 |
|                |                | 9                         | .9 |

Packaging  
(Tape & Reel 1000/ 3000/ 15000 pcs./reel)

### ⑤ Frequency Tolerance

|   |                      |
|---|----------------------|
| F | ±10×10 <sup>-6</sup> |
| G | ±15×10 <sup>-6</sup> |
| H | ±20×10 <sup>-6</sup> |
| J | ±25×10 <sup>-6</sup> |
| K | ±30×10 <sup>-6</sup> |
| M | ±40×10 <sup>-6</sup> |
| P | ±50×10 <sup>-6</sup> |
| W | All Over             |
| Z | Special suffix       |

### Features

- Crystal unit for Consumer Products
- Ultra-miniature and low profile (2.0 × 1.6 × 0.40mm)
- Ceramic package
- Reflow compatible

### Applications

- Digital Electronics
- Consumer Products

### ⑥ Operating Temp. Range ⑦ Frequency Temp. Stability

| ⑥ | ⑦            | Q      | R      | S      | T       | V       | W       |
|---|--------------|--------|--------|--------|---------|---------|---------|
|   |              | ±30ppm | ±40ppm | ±50ppm | ±100ppm | ±150ppm | ±200ppm |
| L | -30 to 85°C  | ✓      | ✓      | ✓      | ✓       | ✓       | ✓       |
| P | -40 to 85°C  | ✓      | ✓      | ✓      | ✓       | ✓       | ✓       |
| R | -40 to 105°C | ✓      | ✓      | ✓      | ✓       | ✓       | ✓       |
| S | -40 to 125°C |        |        | ✓      | ✓       | ✓       | ✓       |
| T | -40 to 150°C |        |        |        | ✓       | ✓       | ✓       |

⑧ Individual Specification (STD Specification is "HH" .)

### Specifications

| Item                            | Symbol           | Specification        | Unit               | Remarks                                      |
|---------------------------------|------------------|----------------------|--------------------|--|
| Frequency Range                 | f <sub>nom</sub> | 16000 to 60000       | kHz                | Please contact us for other frequency range. |
| Overtone Order                  | OT               | Fundamental          | —                  |  |
| Load Capacitance                | CL               | 8                    | pF                 | Please contact us for other CL requirements. |
| Frequency Tolerance             | f <sub>tol</sub> | ± 15                 | × 10 <sup>-6</sup> | 25° C ± 3° C                                 |
| Motional Series Resistance      | R1               | Table 1              | ohm                |  |
| Drive Level                     | DL               | 10 μ W(100 μ W max.) | μ W                |  |
| Operating Temp. Range           | T <sub>use</sub> | - 30 to +85          | ° C                |  |
| Storage Temp. Range             | T <sub>stg</sub> | - 40 to +85          | ° C                |  |
| Frequency Temp. Characteristics | f <sub>tem</sub> | ± 20                 | × 10 <sup>-6</sup> | Freq. deviation from the value at 25° C      |
| Shunt capacitance               | C0               | 2.0max.              | pF                 |  |

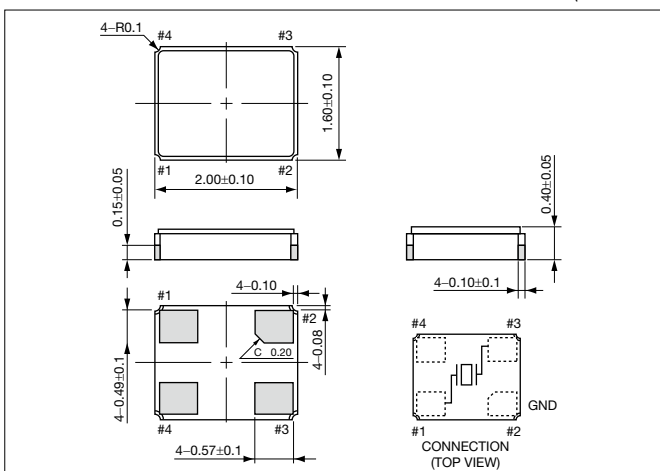
◆ Table 1 Motional Series Resistance ESR (C1)

| Frequency (MHz) | ESR (Ohm) |
|-----------------|-----------|
| 16 ≤ F < 18     | 200       |
| 18 ≤ F < 20     | 150       |
| 20 ≤ F < 24     | 100       |
| 24 ≤ F < 26     | 80        |
| 26 ≤ F < 40     | 60        |
| 40 ≤ F ≤ 60     | 50        |

Please contact us for other specifications.

### Dimensions

(Unit: mm)



### Recommended Land Pattern

(Unit: mm)

